

The Effect of Digital Story Telling on Young Adult EFL Iranian Speaking Skills

Zahra Abolhassani

English Language Department, Science & Art University, Iran.

***Raziyeh Fallah**

English Language Department, Science & Art University, Iran

Abstract

This Quasi experimental study explores the effect of digital story telling tool on EFL learners' speaking skills. In addition, it also examines the EFL learners' attitudes about this application. For this objective 24 participants were selected from a language institute through convenience sampling. After the placement test, they randomly divided in two groups of 12 members. First a pre-test was administered to the participants of control and experimental group. The treatment was given to participants of experimental group, and the control group followed the usual institute method. The participants of experimental group produced five digital stories using Scratch during five weeks. At the end of the course, the posttest was given to both groups. The results revealed a significant difference between two groups. The participants of the experimental group outperformed the participants of control group. According to the results of the attitude questionnaire, the learners showed a positive attitude about using Scratch. The study utilized both qualitative and quantitative data. The findings showed that Scratch might be an enjoyable and helpful tool in learning English language and enhance EFL speaking skills. As a result, it can also be beneficial for course designers and teachers to enhance their learners speaking with enjoyable environment.

Keywords: Digital Story Telling, Iranian EFL learners, Scratch application

Introduction

Speaking involves several processes, beginning with the intention to speak and concluding with the articulation of overt speech (Levelt, 1989). It is sometimes referred to as a complicated action. According to Fisher (2007) speaking is the distinctive way that people express their ideas, knowledge, and emotions verbally. Among four skills, speaking is the most essential skill for learning foreign language. Therefore, it requires command of both listening comprehension and speech production subskills such as vocabulary, pronunciation, choice of grammatical pattern, and so forth. Celce-Murcia and Olshtain (2000) considered speaking as a skill that can only be learned through practice rather than acquiring it. Speaking fluently in a second language is essential for interacting with others who do not share your native tongue

Suppasetsee (2013). According to Somdee and Suppasetsee (2013), Speaking tactics must be developed, because they encourage learners to participate fully in class. Similarly, UKessays (2018) believed the best way to improve fluency and proper pronunciation is through speaking skills.

Additionally, storytelling is a method that enables learners to participate actively in the telling of a story and enhance their speaking skills. It strongly emphasizes the development of both academic and social skills. They spend a lot of time using language as they tell and develop a story. Consequently, this activity aids in the development of their language abilities and speaking skills (Masuram & Sripada, 2020). Preschoolers and young primary school learners have a natural love of storytelling (Febyanti et al., 2022). Inviting learners to recreate the text while also facilitating instructor and learner engagement, storytelling resembles a dynamic process (Valesia et al., 2017). Telling stories for learners not only increase their motivation and interaction but also boost their self-esteem, linguistic proficiency, speaking, and listening fluency. (Ahmadi & Zenouzagh, 2017).

Applying technology in the teaching and learning of foreign languages can give EFL learners more authentic input and opportunities to use the target language. CALL establishes a significant setting in second or foreign language classrooms and encourages learners to excite curiosity and boost response. Worldwide teachers and professionals are attempting to use digital stories as a way to incorporate technology into the classroom to help a range of learning processes, when it comes to improving the kids' speaking abilities. In the 1990s, DST became popular and effective as a method for telling stories. According to (Hung, 2019), DST provides more communication opportunities and makes learning more meaningful than direct teaching of linguistics. Furthermore, DST provides ample of listening practices in speaking, reading and writing that makes learning meaningful (Wu & Chen, 2020). Thus, previous literature strongly supports that DST can play an essential role in helping EFL learners to achieve better English-speaking competence.

The Scratch Application

According to Pinto and Escudeiro (2014), scratch is a tool that is used to create stories, projects included both scrips and media to improve listening and speaking skills. Using this tool and voice recorder, learners can produce images and sounds and record their voice repeatedly. Learners also have the opportunity to share their stories and work together on projects while making them. Therefore, learner's communications and speaking skills develop while they make their stories and record their voices by incorporating different media like pictures and animations. Additionally, for creating stories and animations, Scratch encourages learners to develop their speaking, reading, writing, listening skills, and speaking fluently. Additionally, learners thought that the lessons using Scratch were different and exiting, and they liked its features and creating stories (Burke & Kafai, 2012; Moreno-Leon & Robles, 2015; Wilson & Moffat, 2010). The fallowing research questions guided the study:

RQ 1. Does DST make any significant difference to the Iranian EFL learners' speaking skills?

RQ 2. What are Iranian EFL learners' attitudes towards Scratch as a DST tool and its effect on their speaking skills?

Literature Review

According to the research conducted by Piano and Escudeiro (2014), who focused on using Scratch as a DST tool to help students' creativity and speaking stated that by using this

and its benefits on speaking skills, and add to the existing literature. The small amount of research has been done in different contexts cannot be deemed sufficient to be applied to the Iranian EFL situation.

Method

According to the concept that a research design is a framework for executing a study project, it describes the techniques and steps required for gathering data and assessing the information obtained. The current study employed a mixed -methods quasi-experimental design. Two groups of participants took part in this study. The EG which received the treatment used Scratch as a DST tool to develop their speaking skills. On the other hand, the CG received no treatment.

Participants

The participants of this study were 24 EFL learners of elementary in an English institute. The participants were both male and female and their age was between 13 to 16. The participants were placed in elementary group which is a level for young EFL learners in a language institute in Academic Center for Culture, Education and Research (ACCER). According to the placement test of the institute given in four skills they were placed in elementary. According to the results of placement test it was implied that the learners in both groups had comparable levels of language proficiency.

Instruments

Four instruments used in this study.

Tests

The pre-test was given to the participants of both groups at the beginning of the classes. The pre-test which was a speaking test was taken on one day. Then the participants were randomly divided into groups of three. Treatment was given for EG during five weeks. Therefore, the EG did their speaking tasks by using Scratch and CG without the application of Scratch. The only difference was the treatment. The EG received the treatment, and the CG continued with the regular class routine.

Interviews

After the posttest was over, the interviews, were conducted. Before the interviews the participants were given a clear explanation in Persian. All the participants were encouraged to feel free and at ease. The interviews were taken in their first language and each participant was allotted fifteen minutes. The interviews were conducted one-on-one and it was tape-recorded and transcribed.

Questionnaire

The final instrument was a questionnaire through which the participants perspectives were examined. (see in appendix)

Procedure

The procedure employed in the study for collecting the data is as follows: The classes for both the control and experimental group were conducted twice a week on Saturdays and

Non parametric Wilcoxon and Mann-Whitney tests applying SPSS used in this study because the data obtained was not distributed normally. In other words, non-parametric methods are often used when less is known about the data (when a probability distribution cannot be assumed). In addition, the effect size of both tests was also calculated. The quantitative data was analyzed through descriptive statistics. Therefore, tests in pre-test and posttest were graded by two raters, to determine consistency between the scores, and an inter-rater reliability analysis was conducted and set up according to Cronbach's alpha reliability scale.

Reliability	Cronbach's Alpha	N of Item
Pre-Test	.951	2
Post -Test	.975	2
Pre-test Posttest	.952	4

The last column of Table 1 indicates the reliability for four items. Cronbach's Alpha for the pre-test where the participants were evaluated by the teacher-rater and the co-rater, and the post-test where the participants were evaluated by the teacher-rater and the co-rater is equal to 0.952 which, per the scale, indicated a very high internal consistent reliability.

The first research question investigated in this study was the effect of DST on EFL speaking skills. Due to this research question, two groups were examined. Man-Whitney test was used for comparing EG and CG pre-test score, and the Z value was 1.072 at a significance level of $p=0.291$. As the value of probability is more than 0.05, it can be concluded that in the pre-test results of both EG and CG, they were at the same level.

Wilcoxon Test was used to analyze within-group comparisons and to find out to what extent the participants of EG and CG enhanced their skill of speaking. The average score on the pre- and post-tests was compared in the Wilcoxon test. Therefore, in this study, the Wilcoxon test was used to perform the comparison, and the outcomes are shown below.

Pretest

Table 2-Wilcoxon Test for CG and EG

CG	posttest – pretest	EG	posttest - pretest
Z	-3.070 ^a		-3.074 ^a
Asymp. Sig. (2-tailed)	.002		.002

As 0.05, is the probability value, the analysis in Table 2 shows that the probability value is less than 0.05, which points to a meaningful difference between the pre-test and the post-test scores of the control group in favor of the post-test. Table 2 compares the pre and posttest results of CG and EG using the Wilcoxon test of within group. According to the table 2, 3.070 is the Z value with the significant level of $p = .002$. Therefore, it can be concluded in control group the participants also had improvement in their speaking. The Z value is displayed by the Wilcoxon test when comparing the outcomes of the EG pre- and post-tests. In Table 2, Z value is 3.074 with a significant level of $p = .002$, because the value of probability p is less than 0.05 which points a meaningful difference between the pre-test and the post-test scores of EG in favor of the post-test. Therefore, it can be concluded that in EG the participants showed improvement in their speaking skills and their scores surpassed their scores in pre-test.

Tests for between Group Comparisons

At this stage of the study to determine the outcome of the pre-test and post-test between EG and CG, Mann-Whitney U test was used. The Mann-Whitney U test is a non-parametric test used to compare two independent groups of sampled data. It is used when the distribution of scores does not meet the normality assumption of the parametric tests (Pallant, J. 2007). According to Sheir (2004), this test for calculation applies the ranks of the data rather than their raw values to calculate the statistics. Therefore, the scores on the continuous variable are converted into ranks between two groups and indicate the ranks for two groups are significantly different or not (Pallant, 2007). If Mann- Whitney U does not exceed the critical value at some significance level (usually 0.05), it means that there is enough evidence to reject the null hypothesis.

Table 3-Mann-Whitney Test of Pre-Test and Post-Test

	Pre-Test	Post-Test
Mann-Whitney U	53.500	14.000
Z	-1.072	-3.351
Asymp. Sig. (2-tailed)	.284	.001

When EG and CG pre-test scores were compared using Mann-Whitney, the Z value was 1.072 at a significance level of $p = 0.291$. As the value of probability is more than 0.05, it can be

Conclusion

The central purpose of this study was to examine how Scratch as a DST tool was appropriate for EFL learners to improve their knowledge of English and be fluent in speaking. In addition, it was one of the ways to increase learners' motivation to enhance and practice their speaking skills. Therefore, the result indicated that using Scratch might be useful tool in developing learners' listening, speaking and critical thinking. Furthermore, when learners use Scratch in the target language their vocabulary and language skills improved. Considering all these, to create projects through using Scratch application learners learn how to read and write text in the blocks to make the sprite speak, also they learn how to type text, how to spell and how to pronounce a word correctly to make a good story. In addition to create projects and their story, learners' communication and collaboration skills developed. In other words, they learn how to discuss and collaborate with each other through using pair-work activities in this study. Finally, the use of Scratch can improve learners' speaking very well and they become engaged to put their knowledge in a motivating and meaningful way.

Like any other study, this study also faced some limitations. The first limitation was the small number of participants for some reasons, so the results of this study cannot be generalized. The study's second limitation was the time. Next, the participants had access only to five digital products over the five-weeks which was not sufficient. To ensure that the results of the study were valid and reliable and could be applied to other groups, further research is required, which would require many participants and over a long period. Therefore, this study can be conducted considering the impact of Scratch on learner's vocabulary, grammar, pronunciation, and fluency in the target language, also on learners' critical thinking; on writing skills; on collaborative and cooperative learning; in other Iranian setting such as schools, and universities. Moreover, since the sample included only young learners, the current study can be replicated using different types of learners (adults, bilinguals, etc.).

Acknowledgment

I would like to acknowledge all those who helped me to complete this article. First and foremost, I sincerely thank my supervisor Dr. Fallah for her thoughtful suggestion, encouragements, and support. She guided me with her great patience. She informed me a new way to teach English.

I also extend my thankfulness to my family with their patience, they constantly encourage and help me.

References

- [1] Abdelmageed, M., & El-Naggar, Z. (2018). DST enhances learners' speaking skills at Zewail University of Science and Technology in Egypt. Society for Information Technology Teacher Education International Conference ,278-287. <https://www.learnlib.org/noaccess/182537/>
- [2] Ahmadi, R., & Zenouzagh, Z. M. (2017). The effect of storytelling through puppets on speaking fluency and motivation of pre-intermediate Iranian English as foreign

- language learners. *Journal of Teaching English Language Studies*, 5(4), 65–102. http://journals.iau.ir/article_534539_dbaf07fca249a9ff1d41e735780bc1d3e.pdf
- [3] Banaszewski. (2005). DST: *Supporting digital literacy in grades 4-12*. [https://smartech.gatech.edu/bbitstream/1853/6966/1/Banaszewski Thomas m 200505 mast.pdf](https://smartech.gatech.edu/bbitstream/1853/6966/1/Banaszewski%20Thomas%20200505%20mast.pdf)
- [4] Burke, Q., Kafai. (2012). The writers' workshop for youth programmers. Proceedings of the 43rd Association for Computing Machinery Technical Symposium on Computer Science Education. <https://doi.org/10.1145/2157136.2157264>
- [5] Celce-Murcia, M., & Olshtain (2000). *Discourse and Context in Language Teaching: A guide for language teachers*. <https://ci.nii.ac.jp/ncid/BA52360239>
- [6] Dogan, B. & Robin. (2009). Educational Uses of Digital Storytelling: Creating Digital Storytelling Contents for K-12 Students and Teachers. *Proceedings of Information Technology & Teacher Education International Conference*, 2009(1), 633-638
- [7] Febyanti, J.R., & Sari, D.M.M. (2022). Implementation pair work and storytelling in teaching speaking fluency in Elementary school. *Journal of Teaching and Learning in Elementary Education*, 5(1), 11. <https://doi.org/10.33578/jtlee.v5i1.7888>
- [8] Godwin-Jones, R. (2015). Contributing, creating: Digital Literacies for language learners. *Language Learning & Technology*, 19(3), 20. <http://llt.msu.edu/issues/october2015/emerging.pdf>
- [9] Hung, S.A. (2019). Creating Digital Stories: EFL learners' engagement, cognitive and metacognitive skills. *DOAJ (DOAJ: Directory of Open Access Journals)*. <https://doaj.org/article/78bd378daf3f4d3abfc32c857cal>
- [10] Kasapoğlu-Akyol, P. (2010). Using educational technology tools to improve language and communication skills of ESL students. *Novitas-Royal*, 4(2).
- [11] Kobsiripat, W. (2015). Effects of the media to promote the scratch programming capabilities creativity of elementary school students. *Procedia-social and Behavioral Science*, 174, 227-232. <https://doi.org/10.1016/j.sbspro.2015.01.651>
- [12] Levelt, W.J.M. (1989). Speaking: from intention to articulation. *Choice Reviews Online*, 27(04), 27-1947. <https://doi.org/10.5860/choice.27-1947>
- [13] Małosa, P. (2013). Advantages and disadvantages of digital education. *Biuletyn Edukacji Medialnej*, 2(2), 21-31. <https://depot.ceon.pl/handle/123456789/3454>
- [14] Masuram, J., & Sripada, P. N. (2020). Digital stories to enhance cognitive abilities among learners. 11th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2020, 255–259.
- [15] Merzifonluoğlu, A., & Gönülal, T. (2018). Review of Digital language learning and teaching: Research, theory, and practice. *Language Learning & Technology*, 22(1), 6568. https://scholar.space.manoa.hawaii.edu/bitstream/10125/44580/1/2201_review_3_merzifonluoğlu.pdf
- [16] Moreno-León, J., & Robles, G. (2015). Computer programming as an educational tool in the English classroom a preliminary study. Global Engineering, Education Conference. <https://doi.org/10.1109/educon.2015.7896089>
- [17] Nurzaman, I., Gandana, G., & Wahidah, A. S. (2020). Developing Interactive Storytelling Model to Facilitate Young Learners' Speaking Skills. *The 2nd International Conference on Elementary Education*, 2(1), 64-69

- [18] Oluk, A., & Korkmaz, Ö. (2016). Comparing Students' Scratch Skills with Their Computational Thinking Skills in Terms of Different Variables. *International Journal of Modern Education and Computer Science*, 8(11), 1-7. <https://doi.org/10.5815/ijmecs.2016.11.01>
- [19] Pallant, J. (2007). *SPSS survival manual: a step-by-step guide to data analysis using SPSS for windows*. <http://ci.nii.ac.jp/ncid/BA83963567>
- [20] Pinto, A., & Escudeiro, P. (2014). The use of Scratch for the development of 21st century learning skills in ICT. *Iberia Conference on Information Systems and Technologies*. <https://doi.org/10.1109/cisti.2014.6877061>
- [21] Roby, T. (2010). Opus in the classroom: Striking CoRDS with Content-Related DST. *Contemporary Issues in Technology and Teacher Education*, 10(1), 133-144. <https://journal.org/articles/v10i1currentpractice1.pdf>
- [22] Shumin, K. (2002). Factors to consider: Developing adult EFL students' speaking abilities. In *Cambridge University Press eBooks* (pp. 204-211). <https://doi.org/10.1017/cbo9780511667190.028>
- [23] Sourani, A. I. E., & Ihmaid, M. K. (2019). *The effectiveness of using Scratch applications in developing sixth graders' English vocabulary, its retention, and Self-Efficacy* (Vol. 27, Issue 6). <https://doi.org/10.33976/iugjeps.v27i6.4784>
- [24] Tour, E. (2015). Digital mindsets: teachers' technology use in personal life and teaching. *Language Learning & Technology*, 19(3), 124-139
- [25] Valsesia, F., Diehl, K., & Nunes, J. C. (2017). Based on a true story: Making people believe the unbelievable. *Journal of Experimental Social Psychology*, 71, 105110. <https://doi.org/10.1016/j.jesp.2017.03.001>
- [26] Wilson, A., & Moffatt, D. C. (2010). Evaluating scratch to introduce younger schoolchildren to programming. *PPIG*, 7. <http://ppig.org/library/paper/evaluating-scratch-introduce-younger-schoolchildren-programming>
- [27] Yang, Y., Chen, S. Y., & Hung, S. A. (2020). DST as an interdisciplinary project to improve learners' English speaking and creative thinking. *Computer Assisted Language Learning*, 35(4), 840-862. <https://doi.org/10.1080/09588221.2020.1750431>

Appendix

Questionnaire

1. Computer programs are very important in language learning.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

2. I enjoyed making Digital Stories very much.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Strongly agree |
| 2. Disagree | 4. Agree |

3. DST helped me improve my speaking in terms of



A. Pronunciation

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

B. Fluency

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

C. Grammer

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

D. Vocabulary

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

E. Comprehension

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

4. DST gives me more opportunities to use the target language outside the classroom.

1.Strongly disagree

3. Strongly agree

2. Disagree

4. Agree

5. DST helps me better organize and express my thoughts orally.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

6. Rerecording myself for several times does not help me practice and improve speaking skill.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

7. Making digital stories is boring for me, because I spend much more time on other activities rather than on recording myself.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree



8. I think besides recording myself, reading from the scripts also helps me develop my speaking.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

9. DST has more advantages rather than disadvantages.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

10. I would like to have another course using this program to develop my speaking.

1.Strongly disagree

3. Strongly agree

2.Disagree

4. Agree

Thank you